



General

Guideline Title

The diagnosis and management of ovarian hyperstimulation syndrome.

Bibliographic Source(s)

Joint Society of Obstetricians and Gynaecologists of Canada-Canadian Fertility and Andrology [trunc], Reproductive Endocrinology and Infertility Committee of the SOGC, Executive and Council of the Society of Obstetricians, Gynaecologists of Canada, Board of the Canadian Fertility and Andrology Society, Shmorgun D, Claman P. The diagnosis and management of ovarian hyperstimulation syndrome. J Obstet Gynaecol Can. 2011 Nov;33(11):1156-62. [37 references] [PubMed](#)

Guideline Status

This is the current release of the guideline.

Regulatory Alert

FDA Warning/Regulatory Alert

Note from the National Guideline Clearinghouse: This guideline references a drug(s) for which important revised regulatory and/or warning information has been released.

- [March 22, 2016 – Opioid pain medicines](#) : The U.S. Food and Drug Administration (FDA) is warning about several safety issues with the entire class of opioid pain medicines. These safety risks are potentially harmful interactions with numerous other medications, problems with the adrenal glands, and decreased sex hormone levels. They are requiring changes to the labels of all opioid drugs to warn about these risks.

Recommendations

Major Recommendations

The quality of evidence (I-III) and classification of recommendations (A-L) are defined at the end of the "Major Recommendations."

Diagnosis

Evaluating Severity

1. Once the diagnosis of ovarian hyperstimulation syndrome is made, disease severity should be classified as mild, moderate, severe, or critical. (III-B)

Management

Information and Communication

2. The physician prescribing gonadotropins should inform each woman of her personal risk for ovarian hyperstimulation syndrome. (III-A)
3. In areas where patients do not have ready access to physicians familiar with the diagnosis and management of ovarian hyperstimulation syndrome, the physician prescribing gonadotropins should ensure that women are made aware that they should contact a physician or a member of the team within the hospital unit who has relevant experience, should the need arise. (III-B)

Outpatient Management

4. Outpatient management is recommended for women with mild and moderate ovarian hyperstimulation syndrome. If outpatient management for more severe ovarian hyperstimulation syndrome is to be undertaken, the physician should ensure that the woman is capable of adhering to clinical instructions and that there is a system in place to assess her status every 1 to 2 days. (III-A)

Paracentesis

5. Paracentesis should be performed in admitted patients with tense ascites to alleviate their discomfort. (II-2B)

Culdocentesis

6. Outpatient culdocentesis should be considered for the prevention of disease progression in moderate or severe ovarian hyperstimulation syndrome. (II-2B)

Inpatient Management

7. Women with severe and critical ovarian hyperstimulation syndrome should be admitted to hospital for intravenous hydration and observation. (III-A)

Fluids and Electrolytes

8. Intravenous hydration should be initiated with a crystalloid solution to prevent hemoconcentration and provide adequate end-organ perfusion. If end-organ perfusion is not maintained with a crystalloid solution, an alternate colloid solution should be administered. (II-2B)

Pain Relief

9. Pain relief in admitted patients should be managed with acetaminophen and/or opioid analgesics. (III-B) Non-steroidal anti-inflammatory drugs with antiplatelet properties should not be used. (III-B)

Prevention of Thromboembolic Complications

10. Women with severe ovarian hyperstimulation syndrome should be considered for treatment with prophylactic doses of anticoagulants. (II-2B)

Management of Complications

11. Critical ovarian hyperstimulation syndrome should be managed by a multidisciplinary team, according to the end organ affected. (III-C)

Definitions:

Quality of Evidence Assessment*

I: Evidence obtained from at least one properly randomized controlled trial

II-1: Evidence from well-designed controlled trials without randomization

II-2: Evidence from well-designed cohort (prospective or retrospective) or case-control studies, preferably from more than one centre or research group

II-3: Evidence obtained from comparisons between times or places with or without the intervention. Dramatic results in uncontrolled experiments

(such as the results of treatment with penicillin in the 1940s) could also be included in this category.

III: Opinions of respected authorities, based on clinical experience, descriptive studies, or reports of expert committees

Classification of Recommendations†

A. There is good evidence to recommend the clinical preventive action.

B. There is fair evidence to recommend the clinical preventive action.

C. The existing evidence is conflicting and does not allow to make a recommendation for or against use of the clinical preventive action; however, other factors may influence decision-making.

D. There is fair evidence to recommend against the clinical preventive action.

E. There is good evidence to recommend against the clinical preventive action.

L. There is insufficient evidence (in quantity or quality) to make a recommendation; however, other factors may influence decision-making.

*Adapted from The Evaluation of Evidence criteria described in the Canadian Task Force on Preventive Health Care.

†Adapted from the Classification of Recommendations criteria described in the Canadian Task Force on Preventive Health Care.

Clinical Algorithm(s)

None provided

Scope

Disease/Condition(s)

Ovarian hyperstimulation syndrome (OHSS)

Guideline Category

Counseling

Diagnosis

Evaluation

Management

Treatment

Clinical Specialty

Family Practice

Internal Medicine

Obstetrics and Gynecology

Intended Users

Advanced Practice Nurses

Nurses

Physician Assistants

Physicians

Guideline Objective(s)

To review the clinical aspects of ovarian hyperstimulation syndrome and provide recommendations on its diagnosis and clinical management

Target Population

Women with suspected or confirmed ovarian hyperstimulation syndrome

Interventions and Practices Considered

Diagnosis/Evaluation

1. Diagnosis of ovarian hyperstimulation syndrome (OHSS) based on historical and clinical findings, ultrasound, and laboratory examination
2. Classification of OHSS as mild, moderate, severe, or critical

Management/Treatment

1. Informing each woman who is prescribed gonadotropins of her personal risk for OHSS
2. Outpatient management for mild and moderate OHSS
3. Paracentesis
4. Outpatient culdocentesis
5. Hospital admission for intravenous hydration and possibly paracentesis for women with severe or critical OHSS
6. Initiation of intravenous hydration with a crystalloid solution to prevent hemoconcentration (colloid solution as alternative)
7. Pain relief with acetaminophen or opioids
8. Avoidance of nonsteroidal anti-inflammatory drugs and diuretics
9. Anticoagulants for thromboprophylaxis
10. Management of complications using a multidisciplinary team

Major Outcomes Considered

- Risk of developing ovarian hyperstimulation syndrome (OHSS)
- Complications of OHSS
- Effectiveness of treatments for preventing progression of OHSS

Methodology

Methods Used to Collect/Select the Evidence

Hand-searches of Published Literature (Secondary Sources)

Searches of Electronic Databases

Description of Methods Used to Collect/Select the Evidence

Medline, EMBASE, and the Cochrane database were searched for relevant articles, using the key words "ovarian hyperstimulation syndrome" and "gonadotropins," and guidelines created by other professional societies were reviewed. The time frame of the literature search was from 1990 to

May 2010.

Number of Source Documents

Not stated

Methods Used to Assess the Quality and Strength of the Evidence

Weighting According to a Rating Scheme (Scheme Given)

Rating Scheme for the Strength of the Evidence

Quality of Evidence Assessment*

I: Evidence obtained from at least one properly randomized controlled trial

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III: Opinions of respected authorities, based on clinical experience, descriptive studies, or reports of expert committees

*Adapted from The Evaluation of Evidence criteria described in the Canadian Task Force on Preventive Health Care.

Methods Used to Analyze the Evidence

Systematic Review

Description of the Methods Used to Analyze the Evidence

The quality of evidence was rated using the criteria described in the Report of the Canadian Task Force on Preventive Health Care.

Recommendations for practice were ranked according to the method described in that report (see the "Rating Scheme for the Strength of the Evidence" and the "Rating Scheme for the Strength of the Recommendations" fields).

Methods Used to Formulate the Recommendations

Expert Consensus

Description of Methods Used to Formulate the Recommendations

Not stated

Rating Scheme for the Strength of the Recommendations

Classification of Recommendations†

A. There is good evidence to recommend the clinical preventive action.

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C. The existing evidence is conflicting and does not allow to make a recommendation for or against use of the clinical preventive action; however, other factors may influence decision-making.

D. There is fair evidence to recommend against the clinical preventive action.

E. There is good evidence to recommend against the clinical preventive action.

L. There is insufficient evidence (in quantity or quality) to make a recommendation; however, other factors may influence decision-making.

†Adapted from the Classification of Recommendations criteria described in the Canadian Task Force on Preventive Health Care.

Cost Analysis

A formal cost analysis was not performed and published cost analyses were not reviewed.

Method of Guideline Validation

Internal Peer Review

Description of Method of Guideline Validation

This clinical practice guideline has been prepared by the Joint Society of Obstetricians and Gynaecologists of Canada (SOGC)-Canadian Fertility and Andrology Society Clinical Practice Guidelines Committee, reviewed by the Reproductive Endocrinology and Infertility Committee of the SOGC, and approved by the Executive and Council of the Society of Obstetricians and Gynaecologists of Canada and the Board of the Canadian Fertility and Andrology Society.

Evidence Supporting the Recommendations

Type of Evidence Supporting the Recommendations

The type of supporting evidence is identified and graded for each recommendation (see the "Major Recommendations" field).

Benefits/Harms of Implementing the Guideline Recommendations

Potential Benefits

Early recognition and management of ovarian hyperstimulation, with prompt systematic supportive care, will help avert poor outcomes.

Potential Harms

Not stated

Qualifying Statements

Qualifying Statements

This document reflects emerging clinical and scientific advances on the date issued, and is subject to change. The information should not be construed as dictating an exclusive course of treatment or procedure to be followed. Local institutions can dictate amendments to these opinions. They should be well documented if modified at the local level. None of these contents may be reproduced in any form without prior written permission of the Society of Obstetricians and Gynaecologists of Canada (SOGC).

Implementation of the Guideline

Description of Implementation Strategy

An implementation strategy was not provided.

Implementation Tools

Foreign Language Translations

For information about availability, see the *Availability of Companion Documents* and *Patient Resources* fields below.

Institute of Medicine (IOM) National Healthcare Quality Report Categories

IOM Care Need

Getting Better

IOM Domain

Effectiveness

Patient-centeredness

Identifying Information and Availability

Bibliographic Source(s)

Joint Society of Obstetricians and Gynaecologists of Canada-Canadian Fertility and Andrology [trunc], Reproductive Endocrinology and Infertility Committee of the SOGC, Executive and Council of the Society of Obstetricians, Gynaecologists of Canada, Board of the Canadian Fertility and Andrology Society, Shmorgun D, Claman P. The diagnosis and management of ovarian hyperstimulation syndrome. J Obstet Gynaecol Can. 2011 Nov;33(11):1156-62. [37 references] [PubMed](#)

Adaptation

Not applicable: The guideline was not adapted from another source.

Date Released

2011 Nov

Guideline Developer(s)

Canadian Fertility and Andrology Society - Professional Association

Society of Obstetricians and Gynaecologists of Canada - Medical Specialty Society

Source(s) of Funding

Society of Obstetricians and Gynaecologists of Canada (SOGC)

Guideline Committee

Joint Society of Obstetricians and Gynaecologists of Canada-Canadian Fertility and Andrology Society Clinical Practice Guidelines Committee

Composition of Group That Authored the Guideline

Principal Authors: Doron Shmorgun, MD, Ottawa ON; Paul Claman, MD, Ottawa ON

Joint Society of Obstetricians and Gynaecologists of Canada-Canadian Fertility and Andrology Society Clinical Guidelines Committee:

Mathias Gysler, MD (*Co-Chair*), Mississauga ON; Robert Hemmings, MD (*Co-Chair*), Montreal QC; Anthony P. Cheung, MD, Vancouver BC; Gwendolyn J. Goodrow, MD, Mississauga ON; Edward G. Hughes, MD, Hamilton ON; Jason K. Min, MD, Calgary ON; Jeff Roberts, MD, Burnaby BC; Vyta Senikas, MD, Ottawa ON; Benjamin Chee-Man Wong, MD, Calgary AB; David C. Young, MD, Halifax NS

Financial Disclosures/Conflicts of Interest

Disclosure statements have been received from all members of the committees.

Guideline Status

This is the current release of the guideline.

Guideline Availability

Electronic copies: Available in Portable Document Format (PDF) from the [Society of Obstetricians and Gynaecologists of Canada Web site](#)

. Also available in French from the [SOGC Web site](#) .

Print copies: Available from the Society of Obstetricians and Gynaecologists of Canada (SOGC), La société des obstétriciens et gynécologues du Canada (SOGC) 780 promenade Echo Drive Ottawa, ON K1S 5R7 (Canada); Phone: 1-800-561-2416.

Availability of Companion Documents

None available

Patient Resources

None available

NGC Status

This NGC summary was completed by ECRI Institute on April 11, 2012. The information was verified by the guideline developer on May 10, 2012. This summary was updated by ECRI Institute on October 28, 2013 following the U.S. Food and Drug Administration advisory on Acetaminophen. This summary was updated by ECRI Institute on June 2, 2016 following the U.S. Food and Drug Administration advisory on Opioid pain medicines.

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